COMPLETE LISTING OF THE CLAIMS

The following lists all of the claims that are or were in the above-identified patent application. The status identifiers respectively provided in parentheses following the claim numbers indicate the current statuses of the claims.

Claims 1-9 (Canceled)

10. (Currently Amended) A rapid diagnostic test system comprising:

~~a light source for illuminating~~ a medium containing ~~a sample under test, wherein the medium comprises~~ a labeling substance that ~~binds~~ comprises a persistent fluorescent structure, the labeling structure being capable of binding the persistent fluorescent structure to a target analyte when a sample containing the target analyte is applied to the medium;

a light source positioned to illuminate a target area on the medium; and

a photodetector positioned to measure light from [[a]] the test area of the medium, wherein the ~~first~~ photodetector and the medium are contained in a single-use module.

11. (Original) The system of claim 10, further comprising a reusable module having a receptacle into which the single-use module can be inserted for communication of test signals between the single-use module and the reusable module.

12. (Original) The system of claim 11, wherein the reusable module implements a user interface capable of indicating a test result.

Claims 13-20 (Canceled)

21. (Previously Presented) The system of claim 12, wherein the user interface comprises a display for the test result.

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PH: (408) 927-6700
FX: (408) 927-6701

22. (Previously Presented) The system of claim 11, wherein the test signals are electrical test signals.

23. (Previously Presented) The system of claim 10, wherein the persistent fluorescent structure comprises a quantum dot.

24. (Previously Presented) The system of claim 10, wherein the light that the photodetector measures has a frequency characteristic of fluorescent light resulting from the light source illuminating the persistent fluorescent structure.

25. (Previously Presented) The system of claim 24, wherein the persistent fluorescent structure comprises a quantum dot.

26. (Previously Presented) The system of claim 24, wherein the medium comprises a lateral-flow strip for performing a binding assay, and the test area contains an immobilized substance that binds to and holds a complex including the labeling substance and the target analyte.

Claims 27-29 (Canceled)

30. (New) The system of claim 10, wherein the labeling substance comprises:

a first type of quantum dot that emits light having the first frequency; and

a second type of quantum dot that emits light having the second frequency.

31. (New) The system of claim 30, wherein:

the first type of quantum dot in the labeling substance is attached to a substance that binds to the target analyte and to the test area; and

the second type of quantum dot is attached to a substance that binds to a control area of the medium.

32. (New) A rapid diagnostic test system comprising:

a single-use module including: a medium containing a labeling substance capable of binding a persistent fluorescent structure to a target analyte; and a photodetector positioned to measure light from a test area of the medium; and

a reusable module including: a receptacle into which the single-use module can be inserted for communication of electrical test signals between the single-use module and the reusable module; and a user interface that provides test results according to the electrical test signals from the single-use module.

33. (New) The system of claim 32, wherein the single-use module further comprises a light source positioned to illuminate the test area of the medium.

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34. (New) The system of claim 32, wherein the persistent fluorescent structure comprises a quantum dot.

35. (New) The system of claim 32, wherein the labeling substance comprises:

a first type of quantum dot that emits light having the first frequency; and

a second type of quantum dot that emits light having the second frequency.

36. (New) The system of claim 35, wherein:

the first type of quantum dot in the labeling substance is attached to a substance that binds to the target analyte and to the test area; and

the second type of quantum dot is attached to a substance that binds to a control area of the medium.

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6560 ASHFIELD COURT
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PH: (408) 927-6700
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